DESCRIPTION OF A BRUCHID IMMIGRANT INTO HAWAII BREEDING IN THE SEEDS OF CONVOLVULACEAE (COLEOPTERA).

## By John Colburn Bridwell, Glencarlyn, Virginia.

Under the manuscript name Megacerus pescaprae Faldermann, Director of the Botanic Gardens at St. Petersburg, sent a Bruchid obtained from seeds of Ipomoea pescaprae from Brazil to Schoenherr for use in his work on the Curculionidae. Schoenherr considered it a Bruchus of his Stirps 2, Maniplus 2, and referred it to Fåhraeus, who described it as Bruchus pescaprae in Schoenherr 1839, Gen. Curc. 5:34, no. 48, citing Faldermann's manuscript name in synonymy. Under the International Code of Zoological Nomenclature (see Opinion no. 4) this action validates the monobasic genus Megacerus with the genotype Bruchus pescaprae. This instance seems to be the oldest use of the genonym Megacerus. Jekel in 1855 (Insecta Saundersiana Col. Curc. 1:1) considered the group containing Bruchus pescaprae and B. coryphae Olivier as of generic rank and described it without using a generic name but placed the specimens in his collection under the name Pachybruchus which was published by Pic 1912 (Echange 28:109) as a subgenus. I fully agree with Jekel's opinion and with the suggestion made by Sharp 1885 (Biol. Centr.-Am. Col. $5:+8 t$ ) that the group seems entitled to generic recognition and it is here so treated as the genus Megacerus.

The breeding habits of several species of Megacerus are known and with one possible exception all are attached to the family Convolvulaceae, the larvae living in their seeds. Among these are our species discoideus (Say), impiger (Horn), coryphae (Olivier), and schaefferiamus new name (Bruchus crenatus Schaeffer 1909 not Bruchus crenatus (Fabricius) Thunberg 1791). Material of an undescribed species from Panama in the National Museum bears a label indicating the "silk cotton" as host plant. So far the genus is exclusively American, extending throughout the range of Convolvulaceae on the Continent and in the West Indies, and represented by many species in the American tropics. The species here described is the first of the genus to show migratory tendencies.

The species of Megacerus may be separated into four groups of which the species here described falls into one having these characters: Mucro of hind tibia long and slender, as long as the tibial width at apex or longer, sculpture very strong, at least some of the elytral intervals bearing a row of punctures; body beneath, pygidium, and in part dorsum of pronotum and elytra bearing dense appressed pubescence concealing the surface sculpture and with certain characteristic denudate areas;
apex of front tibia of males bearing a deflected slender acute tooth or spine behind the base of the tarsus; inner carina of hind femur beneath simple, not crenate nor emarginate or toothed at apex. Should further study indicate the need of a name for this group Pachybruchus Pic is available since Bruchus coryphae (originally included and hereby designated as genotype of Pachybruchus) belongs in this group together with Megacerus melaleucus (Fåhraeus) and treticulatus, leucorpilus and excellans (Sharp) all distinct and well distinguished species.

## Megacerus alternatus, new species.

Rufous, head and antennae entirely black; clothed with dense appressed pubescence concealing the surface sculpture, whitish-ochraceous on prothorax and mesothorax shading to snowy white on metapleuron, metasternum, sternites and pygidium; pronotum with a longitudinal denudate area on either side of the median line with an outer acute backward directed spur arising near the middle and a sublateral denudate dot on either side near the middle; elytra with the intervals alternately pubescent and denudate, suture basally passing over on the first interval near the middle, the suture thence denudate, $2,4,6,8$ except on humeral callus, 9 and 10 on humeral lobe, and the apex of elytra pubescent, elsewhere denudate; pygidium with a slight longitudinal denudate excision on either side, these parallel, slightly divergent from the margin anteriorly; legs with sparse cinereous pubescence not concealing the surface; punctures of pronotum revealed on the denudate areas moderate, dense, confluent, well impressed; striae of elytra well impressed, the punctures moderate, not much encroaching on the intervals, subconfluent, a little larger than the more shallow punctures of the intervals; sculpture of pygidium concealed by pubescence; eyes of female separated by nearly the width of the upper lobe of the eye, subcontiguous in the male. Length (from anterior margin of pronotum to apex of elytra), 4 mm .

Described from material furnished by O. H. Swezey of Honolulu and collected by him. Holotype male, Barber's Point, Oahu, Dec. 23, 1923; allotype female, Honolulu, September 22, 1926, from seeds of Ipomoeae pescaprae and four female and six male paratypes with the same data as the allotype.

Holotype, allotype and six paratypes deposited in the collection of the United States National Museum; male and female paratypes in the collection of the Hawaiian Entomological Society; male and female paratypes in the collection of the British Museum (Natural History).

The alternate pubescence of the elytra distinguishes this species from any other, no other species of this group having so much pubescence on the elytra. It resembles, among the described species, leucospilus more closely than any other, but
in that species the sculpture of the elytra is somewhat coarser. In coryphae the profound perforate punctures of the intervals encroach upon the intervals very strongly.

Mr. Swezey first took alternatus on Oahu on Dec. 23, 1923, as recorded (1925, Proc. Haw. Ent. Soc. 6:3 Bruchus near coryphae Olivier). It was subsequently bred by E. L. Caum and Mr. Swezey from Ipomoea pescaprae and by Mr. Swezey from I. tuberculata. In the collection of the National Museum is a series of three broken and much abraded individuals apparently belonging to this species intercepted at San Francisco by L.. A. Whitney in baggage from Nicaragua together with the seeds from which they had bred numbered H. 3870. The seeds appear to be those of Ipomoca crassicaulis (Bentham). better known as $I$. fistulosa Martius, an erect shrub much cultivated in southern Texas and in tropical America generally.

## A NEW GRASSHOPPER (ORTHOPTERA: ACRIDIDAE) FROM TEXAS.

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Melanoplus warneri, new =pecies.
This form belongs to the Texanus series and is most closely related to texenus. The writer formerly confused it with this species (Entomological News, Vol. 37, p. 319), but a study of a large series of both shows it to be an entirely separate and distinct species. It can be easily separated from texanus by the differences in the male cerci, size, fastigium of the vertex. and distribution.

Type male: Brazos County, Texas, May 20, 1928.
Size medium; form robust. Color grayish brown with a ferrugineous tinge on head and pronotum, lighter beneath. Antennae reddish brown, apically infuscated; equal to the combined length of the head and pronotum. Eyes oval, the width equaling two-thirds the length; mottled in color. Fastigium of the vertex moderately declivent, enlarging and rounded apically; shallowly sulcate. Frontal costa equal, plane above, shallowly sulcate around and below the median ocellus. Pronotum enlarging a little posteriorly with the hind margin roundly angulate; the metazona three-fourths the length of the prozona. Median carina very distinct; lateral carina faint. Post-ocular band reaching metazona, broadening posteriorly. Prosternal spine large, sub-conical, blunt, and retrose. Epimera of the meso- and meta-thorax black. Interspace between the mesosternal lobes twice as long as wide; the lobes of the metasternum attingent. Tegmina short, overlapping, ovate with the apices roundly pointed; faintly maculate; scarcely as long as head and pronotum combined. Extremity of abdomen upturned, supra-anal plate triangular, as broad as long, mesially

